



Re: Agenda for July 27 USDA-EPA-USGS Model Coordination meeting

Carpenter, Glenn - Beltsville, MD, Lisa.Duriancik,

Kelly Shenk to: gshenk, mdubin, Scott W Phillips,  
jwbrakeb@usgs.gov, Richard Batiuk

07/29/2010 05:47 PM

Hi Glenn, Lisa, Gary, Rich, Mark, Scott, and John,

Attached is a rough draft of some of the major decisions and actions from our 7/27 meeting.

Can you please take a look at it and edit/add items based on your notes?

I thought we could do this with a small group of folks first before it goes to the full group. Again, thank you for such a productive meeting! K



Draft Summary of Actions USDA EPA USGS Modeling Coordination Meeting.rtf

Kelly Shenk

Agricultural Policy Coordinator

U.S. EPA Chesapeake Bay Program Office

410 Severn Avenue, Suite 112

Annapolis, Maryland 21403

phone: 410-267-5728

fax: 410-267-5777

**USDA/EPA/USGS Modeling Coordination Meeting**  
**U.S. EPA Chesapeake Bay Program Office**  
**Joe Macknis Memorial Conference Room**  
**Tuesday, July 27, 2010**

**DRAFT Summary of Actions and Decisions**

**CEAP Cropland Chesapeake Bay Assessment – Comparative Analysis with Chesapeake Bay Models**

**Proposed Schedule:**

Based on discussions, the following is a tentative schedule for finalizing the CEAP study:

- Finalize report in next 2-3 weeks (estimated timeframe: mid-late August)
- Conduct in-house review at USDA (estimated timeframe: August/September)
- Conduct external review (estimated timeframe: 2-3 month period, October/November)
- Release report (estimated timeframe: December)

**Comparative Analysis**

**ACTION:** Gary Shenk, EPA, will provide Lee Norfleet, USDA, with the following information to aid in the comparative analysis:

- HUC-8's that are in the Chesapeake Bay Watershed so that USDA can ensure that HUC-4's all drain within the watershed.
- Tillage definitions so that USDA can compare to its tillage categories.
- Cover crop definitions so that USDA can compare to its cover crop analyses.
- Definitions of edge-of-field, edge-of-stream, and delivered loads.

**ACTION:** EPA and USDA modelers will meet once the HUMUS/SWAT modeling analysis has been completed and reviewed internally to continue the comparative analysis. This meeting will likely happen in 1-2 months (August/September timeframe), depending on the duration of internal review.

**ACTION:** EPA and USDA will continue to conduct a comparative analysis as the final draft report undergoes external review. Key questions to answer during comparative analysis are:

- How does CEAP inventory of conservation implementation compare to state-reported conservation implementation data used in the Chesapeake Bay Watershed Model?
- How do CEAP findings on practice effectiveness compare to BMP effectiveness estimates used in the Chesapeake Bay Watershed Model?
- How do CEAP predictions of agricultural loads compare to agricultural loads predicted with the Chesapeake Bay Watershed and SPARROW Models?
- How do the CEAP predictions for nutrient load reductions if nutrient management is consistently implemented on all untreated acres compare with the load reductions necessary to meet nutrient cap load allocations (or agricultural caps from Tributary Strategies)? Are they in the same ballpark?

Are there opportunities for refining Chesapeake Bay Watershed Model based on CEAP study (both near-term and long-term)?

#### **Communications Coordination**

**DECISION:** USDA and EPA will work together closely on key communications messages regarding the CEAP report and how it relates to the CB and SPARROW modeling efforts. All agree that consistency in messaging, where possible, is very important.

Regarding messages, the following points were raised:

- Messaging will be different than for the Upper Mississippi River Basin report because it needs to be set within the context of the Chesapeake Bay TMDL.
- USDA wants to recognize benefits of current conservation and stress that untreated acres can be addressed by baseline conservation that can maintain productivity.
- Need to address the need for more comprehensive tracking of voluntary conservation and key roles for USDA, EPA, States, conservation districts and ag community to make this happen.
- Need to explain how USDA's recommendation regarding using a "systems-approach" (suite of conservation practices) relates to state focus in Watershed Implementation Plans.
- Other key messages will be developed once comparative analysis is completed.

Key Overarching questions to answer when identifying key communications messages are:

- Are there any differences in findings between the CEAP study and the Chesapeake Bay Watershed Model? If so, what are the differences and how can they be explained?
- Are overall CEAP recommendations consistent with direction that Chesapeake Bay Program is taking to further reduce nutrient and sediment loads from agriculture? (State approaches in Watershed Implementation Plans, NRCS & CBP focus on priority watersheds and priority practices, promoting more advanced practices for addressing nutrient imbalances in the watershed, etc.).

modeling efforts, BMP refinements, and promote the CEAP study in the Chesapeake Bay watershed initiatives, and the Chesapeake Bay Executive Order Strategy. The following is a list of ideas for how CEAP results can be used.

- **Refine CB Watershed Model:** As CEAP results are finalized and available, look for opportunities to build in findings into the CB Watershed Model – both near term (Sept/Oct. 2010) and long term.
- **Improve Tracking/Reporting of Voluntary Conservation:** Continue to work with States and agricultural community to track and report voluntary conservation in order to credit in the Chesapeake Bay Watershed Model. Anything un-reported conservation practices that were implemented after the model calibration (in 2005 or later) and meet EPA protocols for use in the model can count towards progress in meeting allocations.
  - NASS is working individually with many of the CB watershed states to add

additional survey questions in an effort to meet state desires to track and report more voluntary conservation. NASS suggested that we work together to develop a consistent set of questions in the state surveys that will provide the necessary information to credit these practices in the model, based on EPA protocols.

- Explore possibility of conducting more extensive surveys in the CB Watershed at a HUC-8 scale and whether or not these surveys could collect the types and rigor of data needed to credit voluntary conservation practices in the CB Watershed Model.
  - Discuss lessons learned with CEAP on how to best to track and verify voluntary practices based on their surveying experience.
- **in Model:** For any practices that are new (not currently in the model), CEAP scientists could participate in developing definition and effectiveness estimates for CBP review and approval for use in the model.
  - **Inform Management Direction to Meet 2025 Goal:** Use CEAP results to inform discussions at October Agricultural Conference focused on identifying the key conservation approaches that will help farmers get ready for 2025 restoration goal line. [This was discussed during lunch, but not with full group.]
  - **Inform State TMDL Programs, State Cost Share Programs, and USDA Farm Bill**
    - final CEAP
    - stones and
    - ions that add
    - arget
    - CEAP.
  - **Inform USDA Approach for Meeting E.O. Commitments:** Consider linking CEAP findings to the 4 million acre goal from USDA in E.O. to specify what practices will be promoted and implemented that promote “consistent conservation” that maintains farmer productivity. Track the % of farmers doing everything right and set goals for increasing that % over time.
  - **Apply CEAP Assessment Methodology in Showcase Watersheds:** CEAP can be used as a standardized method for assessing baseline conservation and identifying conservation opportunities in the three USDA Showcase Watersheds.

#### Modeling Collaboration Opportunities

**ACTION:** Develop next steps for exploring incorporation of the SWAT model into Phase 5.3 Watershed Model. Key leads are: Gary Shenk, EPA, Lee Norfleet, TX BREC, Jeff Arnold, SWAT Lead, Doug?, Greg McCarty, USDA ARS, Jing Wu, UMCES, Aisha Sexton, USDA ARS.

**ACTION:** Convene a meeting to discuss evaluation of agricultural conservation implementation in small watersheds: How we can use lessons learned in USDA Showcase watersheds in the CB Watershed. Key leads are: Scott Phillips, USGS, Joel Bloomquist, USGS, Doug ?, Glenn Carpenter, USDA BARC, Amanda Moore, MD NRCS, Lisa Duriancik, USDA. Possible date for meeting August 24-26. [Lisa, let’s talk about who should convene this meeting. I know I

volunteered, but I think it should be someone who is actually going to be setting agenda and leading meeting – either USDA or USGS].

**ACTION:** Continue to use SPARROW model results to inform NRCS selection of priority watersheds in which to target Chesapeake Bay Watershed Program (aka. CBWI) Farm Bill funding.

[Scott/John, please add additional SPARROW action items here.]